Course Outline

Semester I, 2015

MMAN4400

Engineering Management

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This course encompasses the key elements of operations management and investment analysis and pulls them together in a coherent format that allows you to XQGHUVWDQGWKHµLJSLFWXUHµDQGWKHVSHFLILFGHWDLOV¶WLVDOOHGDV Integrating the knowledge gained from the different engineering subjects you have studied into a framework and process that allows you to implement your solutions and ideas in a commercial environment.

Engineers have traditionally played an important role in management, largely because design and technology were the main key factors for success in product and process design, but also the fact that our engineering degree gave us outstanding analytical skills to solve a multitude of problems. 7KLVUHDOOKDVQ¶WFKDQJHG, but in an increasingly complex world, successful organizations ± public, private or governmental ± need managers with increasingly broad and diverse skills, especially in finance, law, risk and quality management, and customer relations. And more to the point, organizations need leaders at every level, with the ability to make carefully considered and innovative long-term strategic decisions. It is the purpose of

Be able to distinguish between several frameworks, methods, tools and to apply the appropriate ones in practical cases

Be able to determine whether a process is capable of producing a product or service to specifications

Be able to integrate important strategies like total quality management, Six-Sigma, and Benchmarking into organizations.

To be able to uss is c

Global Citizens who are:

15. capable of applying their discipline in local, national and international contexts
16. culturally aware and capable of respecting diversity and acting in socially just/responsible ways
17. capable of environmental responsibility

A statement of broad graduate attributes has meaning when expressed in the context of the discipline. The graduate attributes contextualised for engineering are shown at: http://teaching.unsw.edu.au/sites/default/files/upload-files/GradAttrEng.pdf

In this course, you will be encouraged to develop Graduate Attributes 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15 and 17 by undertaking the selected activities and knowledge content. These attributes will be assessed within the prescribed assessment tasks, as shown in the assessment table on Page 7.

3. RATIONALE FOR INCLUSION OF CONTENT AND TEACHING APPROACH

7RGD\¶V RUJDQL]DWLRQV are evermore focused on improving performance. Key to this improvement is high quality engineering management. It has moved from beyond an emphasis on management of quality to a focus on the quality of managing, operating and integrating the design, manufacturing, delivery, marketing, information, customer VHUYLFHDQGILQDQFLDODUHDVWKURXJKRXWDQRUJDQL]DWLRQ¶V

Therefore, a wide variety of concepts and tools of analysis will be covered and you will be interacting with other students in the lectures and practica, either online or face-to-face, sometimes in teams or individually. You become more engaged in the learning process if you can see the relevance of your studies to professional, disciplinary and/or personal contexts, and the relevance is shown in the lectures, face-to-face and web-based practica by way of examples drawn from different industries.

Several case discussions will take place in lectures and face-to-face practica as well as through UNSW Moodle. These aim to give several opportunities to each of you to interact, exchange ideas, knowledge and experiences with the facilitators and other students through:

- Reading from a wide range of cases studies and synthesise a range of perspectives,
- Reflecting on your own experience and knowledge in the light of new learning,
- Exchanging YLHZDQGFKDOOHQJHHDFKRWKHU¶WKLQNLQJLQVWUXFWXUHGOHDU environment,
- Analyzing case studies and relate learnings to your own context working collaboratively on a hypothetical project.

able to make

Special Consideration and Supplementary Assessment

For details of applying for special consideration and conditions for the award of supplementary assessment, see *Administrative Matters for All Courses*, available from the School website.

Assignments

Each of you will be assigned to a case study, as part of a teay

submit it to you demonstrators on Thursday of Week 2. You also need to select which cases you would like to work on. We will try our best to assign you to your top preferences but cannot guarantee this ± especially if everyone picks the same case. That is why you need to number all the eight cases below in order of preference.

You are expected to discuss your case and its questions with your team members and **submit a report at the end of Week 13**. In addition, each team will make a presentation. The representation will be held during practica time between Week 11 to 13. The theme of the presenWDWLRQVKRXOGFRYHU₩KHSUREOHPVWDWHPHQWLVVXH

Plagiarism is using the words or ideas of others and presenting them as your own. Plagiarism is a type of intellectual theft. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. UNSW has produced a booklet which provides essential information for avoiding plagiarism: https://my.unsw.edu.au/student/academiclife/Plagiarism.pdf

There is a range of resources to support students to avoid plagiarism. The Learning Centre assists students with understanding academic integrity and how not to plagiarise. They also hold workshops and can help students one-on-one. Information is available on the dedicated website Plagiarism and Academic Integrity website: http://www.lc.unsw.edu.au/plagiarism/index.html

You are also reminded that careful time management is an important part o

To view your Moodle you will need to have:

A username and password (z pass for Moodle) this process is explained in the links bellow

A computer with Internet access

A web Browser installed with Java; JavaScript and cookies enabled in the browser settings, and with the cache set to display a new version of a page every time it is visited.

For further information please refer to the links given below.

Log on to UNSW Moodle Learn using the following Web address:
http://moodle.telt.unsw.edu.au

The site will provide the information required for getting you started and will provide you with step by step activities required to set up your accounts and access to the course.

The link below provides the information on how to use Bb9 including video demonstration for all topics included: https://student.unsw.edu.au/moodle

9. COURSE EVALUATION AND DEVELOPMENT

Feedback on the course is gathered periodically using various means, including the Course and Teaching Evaluation and Improvement (CATEI) process, informal discussion in the final practica FODVVIRUWKHFRXUVHDQGWKH6FKRROV6WXGHQW6WDII meetings. Your feedback is taken seriously, and continual improvements are made to the course based, in part, on such feedback.

This course was evaluated in S1, 2013. Based on this evaluation, we have made some substantial changes to the practica format and assessment. Instead of two presentations there will now be only a single presentation by each group to be held later in the session. This frees up additional practice time to work on problems and to prepare better for quizzes.

10. USE OF CALCULATORS

You will need to provide your own calculator, of a make and model approved by UNSW, for the quizzes. The list of approved calculators is shown at:
https://student.unsw.edu.au/exam-approved-calculators-and-computers

It is your responsibility to ensure that your calculator is of an approved make and model, and to obtain an Approved sticker for it from the School Office or the Engineering Student Centre prior to the examination. Calculators not bearing an Approved sticker will not be allowed into the quizzes.

11. ADMINISTRATIVE MATTERS

You are expected to have read and be familiar with Administrative Matters for All Courses, available on the School website. This document contains important information on student responsibilities and support, including special consideration, assessment, health and safety, and student equity and diversity.

Erik van Voorthuysen
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